

In the Claims:

1. (Currently Amended) A coupler knuckle casting having an enhanced bearing surface area, said coupler knuckle casting utilized in a railway freight car coupler, said coupler knuckle casting having said enhanced bearing surface area comprising:

(a)—a tail section;

(b) a hub section, said hub section having a pivot pinhole formed therein;

(c)—a front face section connected to said hub section, said front face section including a nose section and a pulling face portion formed inwardly from said nose section, at least a portion of said pulling face portion and said nose section includes an enhanced bearing surface area which includes a substantially flat portion at the pulling face section disposed substantially in a vertical direction and which is substantially arcuate in a horizontal direction, said substantially flat portion extending for a predetermined distance in said vertical direction and for a predetermined length along said horizontal direction, the vertical direction comprising a general direction extending from a top of the coupler to the bottom; and

(d)—a transition section joining said tail section to said hub section, said transition section including a top metal section and a bottom metal section extending toward each other; and

wherein a horizontal line tangential to an intermediate area of the enhanced bearing surface area substantially flat portion substantially arcuate in the horizontal direction is perpendicular to a longitudinal axis of the coupler knuckle casting.

2. (Previously Presented) A coupler knuckle casting having an enhanced bearing surface area, according claim 1, wherein said predetermined distance said substantially flat portion extends in said vertical direction is generally in a range of between about 3.5 inches and about 7.0 inches.

3. (Previously Presented) A coupler knuckle casting having an enhanced bearing surface area, according to claim 2, wherein said predetermined distance said substantially flat

portion extends in said vertical direction is generally in a range of between about 4.0 inches and about 5.5 inches.

4. (Previously Presented) A coupler knuckle casting having an enhanced bearing surface area, according to claim 3, wherein said predetermined distance said substantially flat portion extends in said vertical direction is generally in a range of between about 4.0 inches and about 4.5 inches.

5. (Original) A coupler knuckle casting having an enhanced bearing surface area, according to claim 1, wherein said coupler knuckle is cast steel.

6. (Original) A coupler knuckle casting having an enhanced bearing surface area, according to claim 4, wherein said coupler knuckle is cast steel.

7. (Canceled)

8. (Canceled)

9. (Canceled)

10. (Original) A coupler knuckle casting having an enhanced bearing surface area, according to claim 1, wherein said enhanced bearing surface area is hardened to a predetermined hardness.

11. (Original) A coupler knuckle casting having an enhanced bearing surface area, according to claim 10, wherein said predetermined hardness is at least about 40 Rockwell C.

12. (Original) A coupler knuckle casting having an enhanced bearing surface area, according to claim 1, wherein said nose section includes a generally cylindrical opening formed in an end portion thereof.

13. (Currently Amended) In combination with a railway freight car coupler, the improvement comprising a coupler knuckle casting having an enhanced bearing surface area, said coupler knuckle casting having:

~~(a)~~—a tail section;

~~(b)~~—a hub section, said hub section having a pivot pinhole formed therein;

~~(c)~~—a front face section connected to said hub section, said front face section including a nose section and a pulling face portion formed inwardly from said nose section, at least a portion of said pulling face portion and said nose section includes an enhanced bearing surface area which includes a substantially flat portion at the pulling face section disposed substantially in a vertical direction and which is substantially arcuate in a horizontal direction, said substantially flat portion extending for a predetermined distance in said vertical direction and for a predetermined length along said horizontal direction, the vertical direction comprising a general direction extending from a top of the coupler to the bottom; and

~~(d)~~—a transition section joining said tail section to said hub section, said transition section including a top metal section and a bottom metal section extending toward each other; and

wherein a horizontal line tangential to an intermediate area of the enhanced bearing surface area substantially flat portion substantially arcuate in the horizontal direction is perpendicular to a longitudinal axis of the coupler knuckle casting.

14. (Original) The combination, according to claim 13, wherein said nose section includes a generally cylindrical opening formed in an end portion thereof.

15. (Currently Amended) In combination with an existing railway freight car coupler, the improvement comprising retrofitting a coupler knuckle casting having an enhanced bearing surface area into said existing railway freight car coupler, said coupler knuckle casting having:

(a)—a tail section;

(b) a hub section, said hub section having a pivot pinhole formed therein;

(e)—a front face section connected to said hub section, said front face section including a nose section and a pulling face portion formed inwardly from said nose section, at least a portion of said pulling face portion and said nose section includes an enhanced bearing surface area which includes a substantially flat portion at the pulling face section disposed substantially in a vertical direction and which is substantially arcuate in a horizontal direction, said substantially flat portion extending for a predetermined distance in said vertical direction and for a predetermined length along said horizontal direction, the vertical direction comprising a general direction extending from a top of the coupler to the bottom; and

(d)—a transition section joining said tail section to said hub section, said transition section including a top metal section and a bottom metal section extending toward each other; and

wherein a horizontal line tangential to an intermediate area of the enhanced bearing surface area substantially flat portion substantially arcuate in the horizontal direction is perpendicular to a longitudinal axis of the coupler knuckle casting.

16. (Original) The combination, according to claim 15, wherein said nose section includes a generally cylindrical opening formed in an end portion thereof.

17. (Previously Presented) A coupler knuckle casting having an enhanced bearing surface area, according to claim 1, wherein said predetermined length along said horizontal direction which is substantially arcuate extends over at least a portion of said hub section, said front face section and at least a portion of said nose section.

18. (Previously Presented) A coupler knuckle casting having an enhanced bearing surface area, according to claim 4, wherein said predetermined length along said horizontal direction which is substantially arcuate extends over at least a portion of said hub section, said front face section and at least a portion of said nose section.

19. (Previously Presented) A coupler knuckle casting having an enhanced bearing surface area, according to claim 6, wherein said predetermined length along said horizontal direction which is substantially arcuate extends over at least a portion of said hub section, said front face section and at least a portion of said nose section.